Rodriguez, Susan (CONTR)

From:	Tiedeman, Jennifer
Sent:	Monday, November 06, 2017 6:17 AM
To:	Maarbjerg, Peder;Loraine, Jennifer A.;Dannenfelser, Marty;Davenport, Shari;Peery, Kathy;Oliver, Martha;Tuttle, Robert;Temple, Patricia;Manning, Matthew;Faith, Jayne;Levin, Joseph;Manuel, Allan K.;TallBear, Jody;EERE Legislative Affairs;Capanna, Stephen;Podkaminer, Kara;Wahlert, Kayt;King, Benjamin;Spitsen, Paul;Sutton, Sharon (EIA);Breed, Patricia (EIA);O'Conor, Letitia;Nolan, Gregory;Jones, Dylan;Pafe, Robert;Karimjee, Anhar;FE_Question for Record,;Daniels, Jarad;Kislear, Jordan;Smith, Chelsea;Nicoll, Eric;Kirchhoff, Stephen;Lawrence, Andrew;Biggs, Amy;Pruitt, Barbara (Stone);Carter, Tony;Morman, Laurie;Tirado, Christopher;Kniskern, Jacqueline;NE Correspondence;Miotla, Dennis;Williams, Bradley;Kelly, John;Tullis, Cathy;Fickel, Louise;Webster, Ellen;Perrin, Rusty;Rousseaux, Charles;Zweig, Jenah;Telleen, Paul;McGovern, Matthew;Lushetsky, John;Battershell, Carol;Carruthers, Julie;Salmon, Jeffrey;Klausing, Kathleen;Oliver, Manny;Seifert, Roger;Baskerville, Sonya;Tyer, Katherine (SWPA);Smith, Barbara;Costner, Brian;Campbell, Drew;Blaustein, Rochelle;Brown, Michael;Fitzsimmons, Alexander;Jayne, Kevin A.;Simmons, Daniel;Jones, Dylan;Urie, Matthew;Getz, Tracy M. (GC);doe.ocio.executive-secretariat;McNamee, Bernard;Grace-Tardy, Ami;Barhydt, Laura;Armstrong, Ashley;Cymbalsky, John
Cc:	Cohen, Daniel;Kohl, Elizabeth;Chaudhari, Preeti;Goshe, Catherine;Ro, Tina
Subject:	Time Sensitive - LRM [MJR-115-149] DUE Today 11/6 @ 11:00AM ENERGY AND EPA Testimony on HR__ Energy Star Reform Act of 2017
Attachments:	Draft- DOE Statement on ESTAR for OMB review.docx; EPA Energy Star draft testimony 11-04-17 OMB review.docx

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All -

DEADLINE: 11:00AM – TODAY -Monday, November 06, 2017

Attached are **DOE and EPA** draft statements for the record for a Nov. 7 hearing before the House Energy and Commerce Committee on an unintroduced discussion draft bill, the H.R. __ Energy Star Reform Act of 2017. There will be no Administration witnesses attending this hearing.

Please provide any comments or clearances on the two attached statements for the record by the deadline.

Text of H.R. ___ Energy Star Reform Act of 2017: http://docs.house.gov/meetings/IF/IF03/20171107/106592/BILLS-115HR___ih.pdf

Thank you,

Jennifer

Jennifer Tiedeman
Attorney-Adviser
Office of Legislation, Regulation and Energy Efficiency

Office of the General Counsel
U.S. Department of Energy
202-287-6111 (direct)

Statement for the Record
Administrator Scott Pruitt
U.S. Environmental Protection Agency

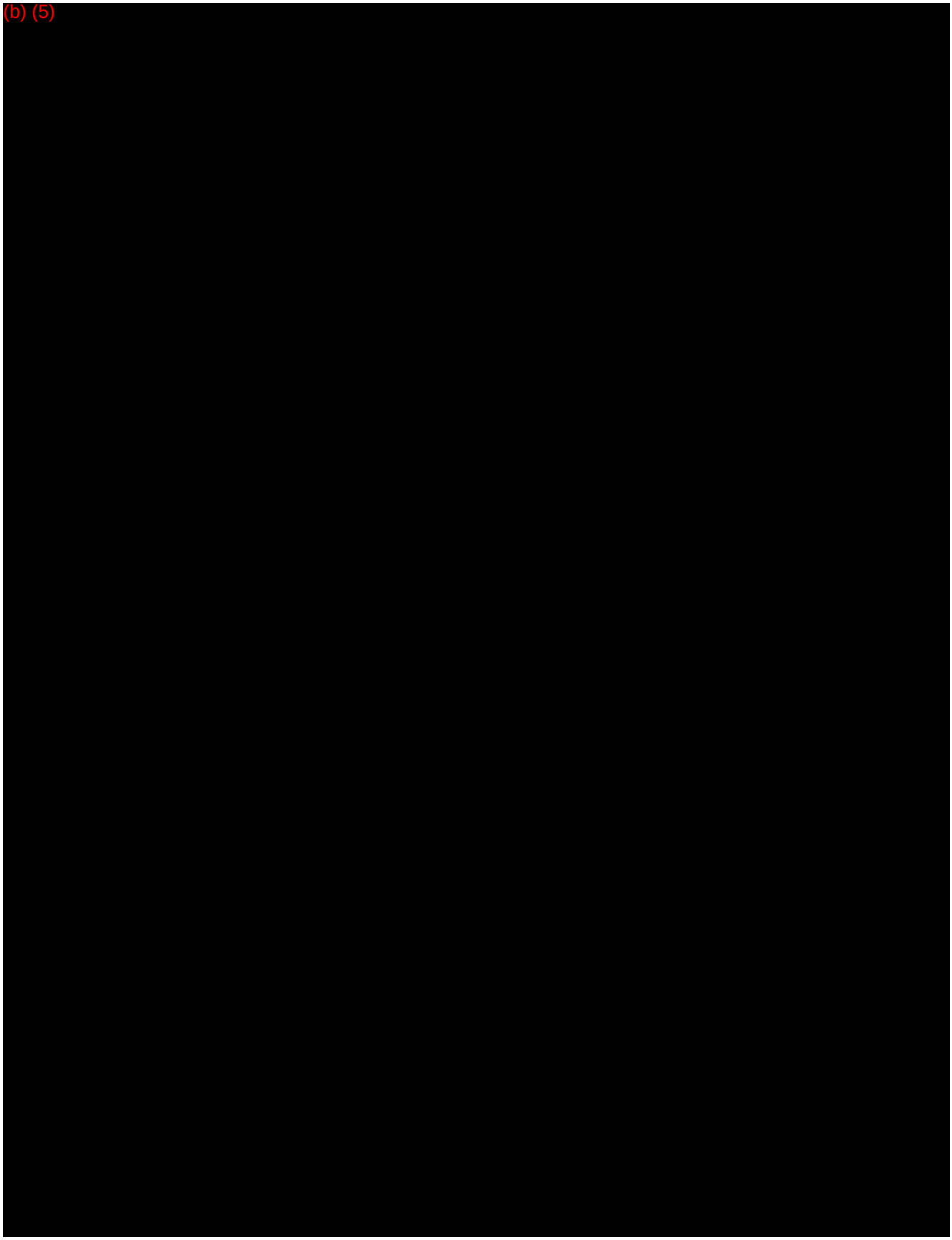
Hearing: Discussion Draft, ENERGY STAR Reform Act of 2017 and H.R. 3477, Ceiling Fan Energy Conservation Harmonization Act

Energy and Commerce, Energy Subcommittee
United States House of Representatives
November 7, 2017

(b) (5)

[redacted]

(b) (5)



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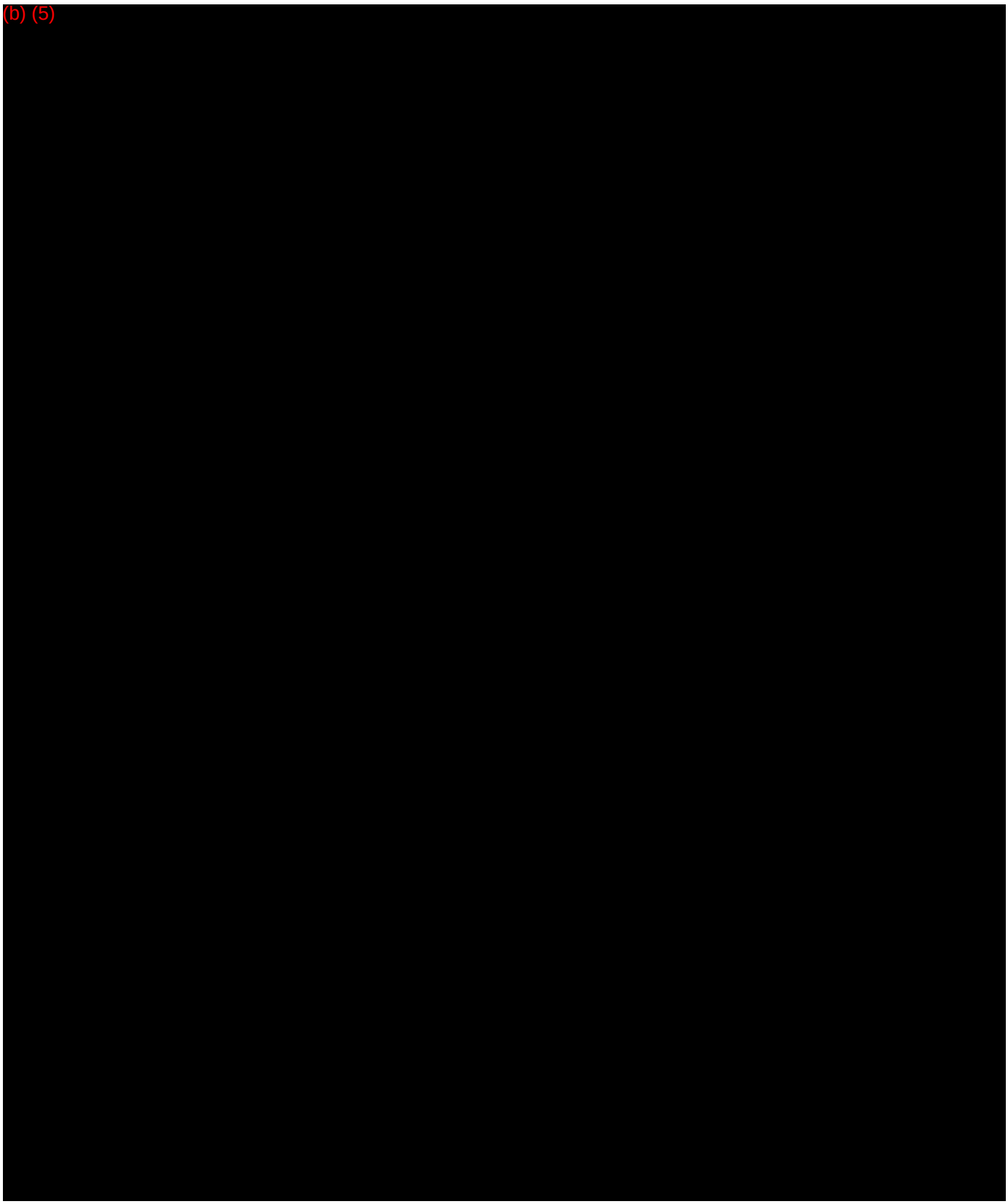

Rodriguez, Susan (CONTR)

From:	Tiedeman, Jennifer
Sent:	Tuesday, November 07, 2017 10:13 AM
To:	Maarbjerg, Peder;Loraine, Jennifer A.;Dannenfelser, Marty;Davenport, Shari;Peery, Kathy;Oliver, Martha;Tuttle, Robert;Temple, Patricia;Manning, Matthew;Faith, Jayne;Levin, Joseph;Manuel, Allan K.;TallBear, Jody;EERE Legislative Affairs;Capanna, Stephen;Podkaminer, Kara;Wahlert, Kayt;King, Benjamin;Spitsen, Paul;Sutton, Sharon (EIA);Breed, Patricia (EIA);O'Conor, Letitia;Nolan, Gregory;Pafe, Robert;Karimjee, Anhar;FE_Question for Record,;Daniels, Jarad;Kislear, Jordan;Smith, Chelsea;Nicoll, Eric;Kirchhoff, Stephen;Lawrence, Andrew;Biggs, Amy;Pruitt, Barbara (Stone);Carter, Tony;Morman, Laurie;Tirado, Christopher;Kniskern, Jacqueline;NE Correspondence;Miotla, Dennis;Williams, Bradley;Kelly, John;Tullis, Cathy;Fickel, Louise;Webster, Ellen;Perrin, Rusty;Rousseaux, Charles;Zweig, Jenah;Telleen, Paul;McGovern, Matthew;Lushetsky, John;Battershell, Carol;Carruthers, Julie;Salmon, Jeffrey;Klausing, Kathleen;Oliver, Manny;Seifert, Roger;Baskerville, Sonya;Tyer, Katherine (SWPA);Smith, Barbara;Costner, Brian;Campbell, Drew;Blaustein, Rochelle;Brown, Michael;Fitzsimmons, Alexander;Jayne, Kevin A.;Simmons, Daniel;Jones, Dylan;Urie, Matthew;Getz, Tracy M. (GC);Finken, Anne;Beard, Susan;Lenhard, Joseph;Kelly, Beth;doe.ocio.executive-secretariat;McNamee, Bernard;Oehlbert, Sean;Van Dyke, Henry;Tomboulian, Cynthia
Cc:	Cohen, Daniel;Kohl, Elizabeth;Chaudhari, Preeti;Goshe, Catherine;Ro, Tina
Subject:	Supplemental Documents: Planning for Natural Disaster Debris Guidance
Attachments:	EO12866_Planning for Natural Disaster Debris_2050-ZA11_Supplemental Doc1....docx; EO12866_Planning for Natural Disaster Debris_2050-ZA11_Supplemental Doc2....pdf

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All –

Please see attached EPA's Supplemental documents focusing on all-hazard debris. These documents are related to and inform the PNDD that was previously circulated. Please consider them for any potential conflict or for additional synergies between all-hazard and natural disaster debris guidance.

Please submit any comments on these documents by **9 am Tuesday, November 14**.

Thank you,

Jennifer

Jennifer Tiedeman
Attorney-Adviser
Office of Legislation, Regulation and Energy Efficiency
Office of the General Counsel
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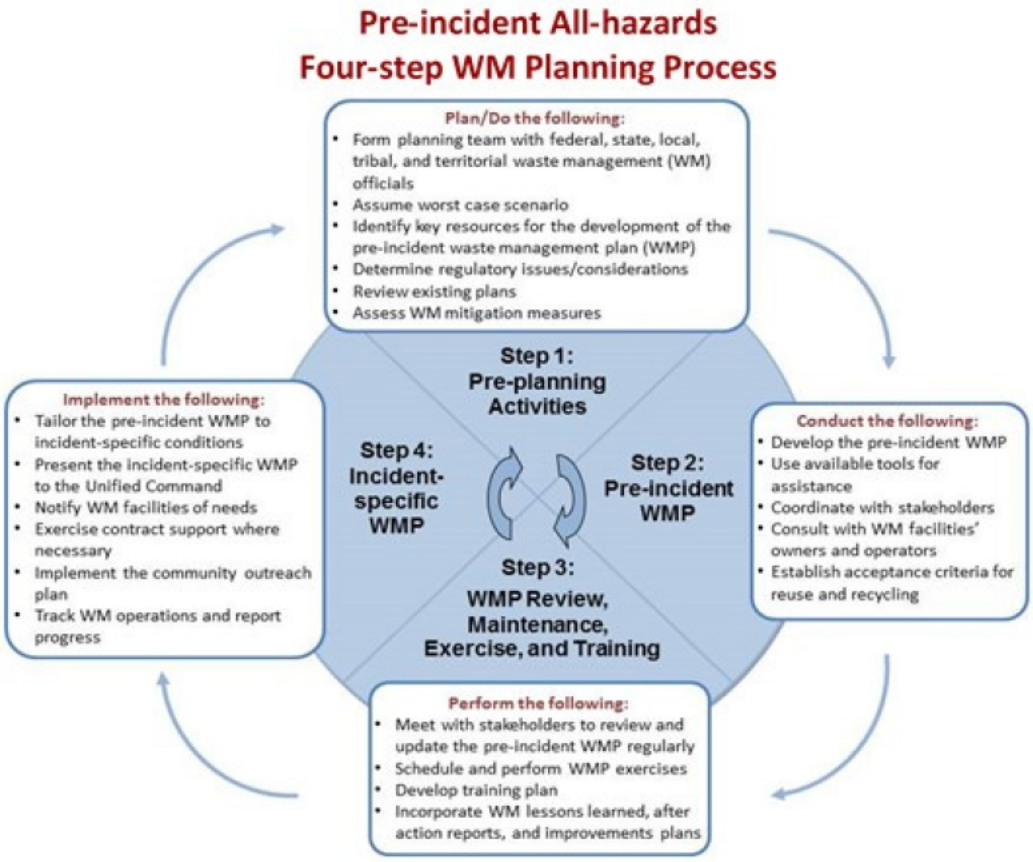
202-287-6111 (direct)

Pre-incident All-hazards Waste Management Plan Guidelines:
Four-step Waste Management Planning Process

Introduction

The U.S. Environmental Protection Agency recommends that communities have a pre-incident waste management plan (WMP)[1] (may also be called a debris management plan) that addresses the management of waste generated by all hazards.[2] The WMP should particularly address wide area homeland security incidents ranging from natural disasters and animal disease outbreaks to chemical spills and nuclear power plant accidents to terrorist attacks involving conventional, chemical, radiological, or biological agents. A WMP that addresses only natural disasters is inadequate for other threats communities may encounter. This document describes the recommended pre-incident waste management (WM)[3] planning process to assist communities in preparing for an incident's waste management needs, regardless of the hazard.



Given the potentially large amounts and unusual types of waste that may be generated, communities with comprehensive and well-coordinated pre-incident WMPs are expected to recover more quickly and at less cost from homeland security incidents, enhancing these communities' resiliency. Due to the broad range of possible threats and potentially wide areas of impact, this planning should be community-based and integrated across appropriate agencies, community groups, and industries, as well as among federal, state, local, tribal, and territorial stakeholders. Waste management planning is not a one-time activity but rather an on-going process that continues even after a pre-incident WMP is created.

The WM planning process has been divided into four steps in order to make it more manageable. The WM planning process does not have to be completed at one time or by one person. The four steps in the waste management planning process are: 1) conducting pre-planning activities; 2) developing a comprehensive pre-incident WMP for all hazards; 3) keeping the WMP updated by regularly reviewing, maintaining, exercising, and training with it; and 4) implementing the WMP during an incident. For more information, please visit EPA's Managing Materials and Wastes for Homeland Security Incidents website at https://www.epa.gov/homeland-security-waste.

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[1] This document uses the term "waste" broadly to include both waste and debris, as well as non-waste materials. Waste, debris, and non-waste materials should be addressed in a pre-incident WMP.

[2] All-hazards: "These include accidents, technological events, natural disasters, space weather, domestic and foreign-sponsored terrorist attacks, acts of war, weapons of mass destruction (WMD), and chemical, biological (including pandemic), radiological, nuclear, or explosive (CBRNE) events." (DHS, Federal Continuity Directive 1, January 17, 2017, p. N-1) (https://www.fema.gov/media-library/assets/documents/86284)

[3] The term "waste management" includes staging, sampling, characterization, packaging, transportation, reuse, recycling, composting, treatment, and disposal activities.

Step 1: Conduct Pre-planning Activities

1. Prioritize plan development
   - Conduct a community-specific hazard assessment that looks at realistic worst-case scenarios and hazards, their likelihood, and the potential volumes and masses of wastes generated
   - Consider whether you want a single plan that addresses all hazards (recommended)[4] or separate, scenario-specific plans
2. Identify and engage with individuals and groups who should be involved in the planning process, as appropriate
   Consult individuals or groups who represent transportation, sanitation, emergency response, environmental health, public health, public works, zoning, agriculture, industry and business, among others.
3. Identify, review, and coordinate national, regional, state, local, tribal, territorial, and any organization-specific plans and mutual aid agreements
   Include plans of bordering jurisdictions, including bordering states, countries, and tribal lands, if applicable.
4. Enhance community resiliency *by identifying opportunities for source reduction (e.g., updating building codes for resilient building design and construction), hazard mitigation (e.g., eliminating potential problematic wastes), and developing infrastructure for composting, recycling, and reuse of materials.*
5. Determine legal and regulatory WM requirements, issues, and considerations
6. Review the Federal Emergency Management Agency's (FEMA's) eligibility requirements, specifically those pertaining to debris removal, for applicable situations, such as a federal emergency or major disaster declaration[5]
7. Identify unique, local circumstances and issues that may affect waste management during an incident (e.g., union concerns, geography, environmental justice concerns)

Step 2: Develop a Comprehensive Pre-incident WMP

1. Use available tools to aid in plan development
   Appendix A *provides a suggested outline for a scalable, adaptable pre-incident plan that includes recommended plan contents and identifies issues to consider while developing the plan. The specific contents and organization of a WMP are flexible. This document provides a general example to help emergency managers and planners get started.*[6]

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[4] This document assumes a single, comprehensive WMP that covers all hazards will be developed; however, separate scenario-specific plans would address much of the same information but would be tailored to the specific scenario.

[5] Emergency managers and planners may find more detailed information regarding pre-incident planning activities in EPA's *Planning for Natural Disaster Debris* document (https://www.epa.gov/homeland-security-waste/guidance-about-planning-natural-disaster-debris) and FEMA's *Public Assistance Program and Policy Guide* (https://www.fema.gov/media-library/assets/documents/111781).

[6] For additional assistance in preparing a waste management plan, see "Appendix D: Debris Management Plan Job Aid" in FEMA's *Public Assistance Program and Policy Guide* (https://www.fema.gov/media-library/assets/documents/111781)

2. Consult the individuals identified in Step 1 when developing the plan
3. Consult haulers, owners and operators of waste management facilities, including reuse and recycling facilities, and other entities as they are identified while developing the plan
   For unique waste streams, specialized expertise may be needed for transport and other waste management activities. Make sure all entities receive a copy of the relevant portions of the plan when it is completed.
4. Identify options for reuse, recycling, and composting for different materials and wastes
   Consult with facilities and appropriate regulatory authorities about establishing acceptance criteria for these materials and wastes.

Step 3: Keep the WMP Updated

1. Reach out to stakeholders across the whole community to review and update the pre-incident WMP regularly
2. Schedule waste management-related exercises and track the schedule, scenarios exercised, and stakeholders involved
3. Develop a training plan to address training needs for staff and equipment (e.g., National Incident Management System (NIMS), National Response Framework (NRF), technical, and health and safety trainings)
4. Incorporate any WM lessons learned, after action reports, and improvement plans into the pre-incident WMP

Step 4: Implement the WMP During an Incident[7]

1. Identify the pre-incident WMP that best aligns with the specific incident, if applicable
2. Identify WM-related policy or implementation issues that require resolution
3. Create the incident-specific WMP based on the pre-incident WMP
   Include the incident's situational overview, generated waste types and quantities, locations of waste, an exit strategy, and health and safety requirements, and update other sections of the incident-specific plan with real-world numbers.
4. Present the incident-specific plan to the appropriate Incident Command staff (response to an incident, including WM decision-making, will occur within the Incident Command System[8])
5. Notify WM facilities of anticipated needs and utilize contract support where necessary
6. Implement the WM-related community communications and outreach plan in line with the broader, overall incident communications plan
7. Identify waste sampling requirements and notify labs of anticipated analysis needs

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and FEMA's Independent Study Course, "IS-633: Debris Management Plan Development," which is available online through the Emergency Management Institute (https://training.fema.gov/is/courseoverview.aspx?code=IS-633).

[7] For more information about the waste management decision-making process after an all-hazard incident occurs, see the *All-hazards Waste Management Decision Diagram for Homeland Security Incidents*, which can be found at https://www.epa.gov/homeland-security-waste.

[8] https://www.fema.gov/incident-command-system-resources

8. Conduct WM oversight activities, such as site visits to, inspections of, and environmental monitoring at WM sites, as appropriate
9. Implement a comprehensive waste and material tracking and reporting system

Example of Waste Tracking Template

Tracking waste from its point of generation to its final disposition can be done using a simple spreadsheet.

A	B	C	D	E	F	G	H	I
Point of Generation	Date	Waste Type	WM Staging Area	Amount Managed	Cumulative Amount Managed	Units	Waste Management Facility	Comments

10. Ensure protection of human health and the environment at the incident site over the long-term through continued environmental monitoring, cleanup, inspections, and other activities, as necessary

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This document emphasizes the need for planning for waste management before an incident occurs. It is intended to encourage communities to begin planning now to help ensure their compliance with applicable waste management-related regulations during incidents. **Please note that this document does not establish any requirements, create any right or benefit, provide any relief from applicable regulations, or create any flexibility that is not currently allowed by law.**

This document is not a regulation. It does not change or substitute for any legal requirement. This document is not a rule, is not legally enforceable, and does not confer legal rights or impose legal requirements upon any member of the public, states, or any other federal agency. The word "should" in this document does not connote a requirement, but rather indicates the EPA's recommendations or suggestions. Consult applicable federal, state, local, tribal, and territorial requirements.

Appendix A: Suggested Pre-incident All-hazards Waste Management Plan Outline

This outline describes the "table of contents" of a typical pre-incident WMP. The column on the left specifies the information to be included in a WMP, while the column on the right describes various issues that should be considered when developing each section of the plan to maximize its benefit during an actual incident. The column on the right also provides links to tools and resources that may aid in the development of the pre-incident WMP, as well as tips on adapting the pre-incident plan to an incident-specific plan after an actual incident occurs. The plan contents and list of considerations are not exhaustive and are not intended to be prescriptive. Instead, this outline is intended to be a starting point to aid in developing a pre-incident WMP. Information in one section may apply to other sections. The final organization and contents of a pre-incident WMP are entirely up to emergency managers and planners. Keep in mind that, when applicable, the National Response Framework[1] will guide a response to an incident and, thus, should be considered when developing a plan.

This outline assumes an all-hazards pre-incident WMP. Much of the information in a WMP is applicable to any scenario. However, scenario- and agent-specific information should also be developed to the extent possible and included in an all-hazards plan. This information may be incorporated as additional sub-headings within each section or as a series of appendices to the WMP.

Plan Contents:	Considerations:
I. Plan Overview 1. Scope *Scenario and entity covered* 2. Planning assumptions 3. List of officials who should be notified in the case of an incident 4. Roles and responsibilities *Include specialized resources (e.g., subject matter experts for consultation, emergency response teams)* 5. Regulatory requirements 6. Record of plan reviews and updates to include any changes made	This section should be updated as needed during an incident with the situational overview. Scenarios may be based on National Planning Scenarios[2] and/or site- and community-specific threats, hazards, and vulnerabilities. Include relevant federal, state, local, tribal, and territorial (including neighboring countries, as appropriate) environmental/public health regulatory and legal requirements that impact waste management and material reuse. Also, include the impact that a federal emergency or major disaster declaration might have on applicable laws. Keep in mind that state requirements may be more stringent than federal requirements and may include additional waste streams not covered under federal laws. Establish roles and responsibilities for all waste management activities, including who will monitor contractors and waste management sites.

[1] http://www.fema.gov/national-response-framework
[2] https://emilms.fema.gov/IS800B/lesson5/NRF0105060t.htm

II. Materials and Waste Streams 1. List of anticipated waste streams 2. Description of each waste stream *Include regulatory status (federal and state), associated hazards if any, agent-specific (e.g., chemical, biological) information, fact sheets if any, contact information for waste-specific subject matter experts, and packaging, labeling, handling, and transportation requirements, as well as identify decontamination and reuse, recycling, treatment, and disposal options appropriate to that waste stream*	This section should be updated as needed during an incident with the actual waste streams generated by the incident. Consider these and other potential waste streams: • Ammunition and Explosives • Animal Carcasses • Aqueous Waste (e.g., water from decontamination activities) • Asbestos-containing Material • Asphalt • Biological-contaminated Waste • Building Contents • Chemically-contaminated Waste • Commingled Debris • Construction and Demolition Debris • Cylinders and Tanks • Electronic Waste • Food Waste • Hazardous Waste • Household Hazardous Waste • Metals • Mixed Waste • Municipal Solid Waste (MSW) • Pharmaceuticals • Polychlorinated Biphenyl (PCB)-containing Waste • Radiological-contaminated Waste • Regulated Medical Waste • Soils, Sediments, and Sandbags • Solid Waste from Response Activities (e.g., personal protective equipment (PPE), waste from law enforcement activities) • Treated Biological-contaminated Waste • Treated Chemically-contaminated Waste • Treated Radiological-contaminated Waste • Treated Wood • Used Oil and Oil-contaminated Waste • Vegetative Debris • Vehicles and Vessels • White Goods (i.e., household appliances)
III. Waste Quantities 1. Forecast quantity of each type of anticipated waste 2. Method for estimating actual waste quantities during/after an incident	This section should be updated as needed during an incident with waste estimates based on the specifics of the incident. **Recommended Tools:** Incident Waste Decision Support Tool (I-WASTE DST) (registration is required to use this tool) http://www2.ergweb.com/bdrtool/login.asp

(e.g., GIS, windshield assessment, manned and unmanned aerial surveillance)	FEMA's Hazards U.S.-Multi-Hazard (Hazus-MH) (for estimating potential losses from earthquakes, floods, and hurricanes) http://www.fema.gov/hazus EPA's Waste Estimation Support Tool (WEST) (for estimating the type and amount of waste generated from cleanup after a radiological incident) https://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=288802
IV. Waste Characterization Sampling and Analysis *(for each waste stream)* 1. Sampling *Estimate number of samples, identify type of analysis needed for each waste/material type, potential approaches to combine/composite samples, and address Health and Safety issues, such as appropriate PPE for sampling activities AND* *Identify any requirements for transporting the samples to laboratories for testing (e.g., U.S. Department of Transportation (DOT), Centers for Disease Control and Prevention, Department of Energy, U.S. Department of Agriculture)* 2. Analysis *Identify data quality objectives, labs which can conduct the analyses, as well as methodologies for the analyses, what items are needed for sampling (e.g., swabs, sample bottles), sampling methodologies (e.g., composite sampling procedures), and the required techniques* 3. Quality assurance *Identify methods to ensure the quality of the data, analysis, and results*	Two different types of sampling may be needed to meet waste acceptance criteria at waste management facilities and to allay community concerns: 1) sampling to classify and determine compliance with federal, state, local, or tribal regulatory criteria, and 2) sampling to ensure that waste/materials have been effectively decontaminated. Environmental Justice and other community concerns may make it advisable to conduct testing even when it is not legally required or conduct additional sampling and analysis in order to ensure transparency. As this may be cost-prohibitive, an alternative may be managing all waste as hazardous waste under RCRA. The relative costs/benefits should be evaluated, such as available capacity at laboratories and waste management facilities. Lab selection considerations include capacity, capability, access, cost, time needed to produce results, and anticipated community concerns. Lab analysis is often a bottleneck in an incident response. Labs will be involved in sampling for characterization and clearance of the incident location; therefore, consider sampling strategies in advance to limit the number of samples analyzed, if possible.

V. Waste Management Strategies/Options 1. General principles *By activity* a. Minimization (actions to minimize waste generation, toxicity, and physical size) b. Collection (procedures; health and safety requirements) c. Segregation (procedures) d. Decontamination (people, equipment, waste/materials; health and safety requirements) e. Accumulation/Storage (site location selection criteria; documentation; health and safety requirements) 2. Pre-selected waste management sites *Site-specific information* a. Waste staging and storage (short-term and long-term) locations b. Equipment staging and storage (short-term and long-term) locations c. Decontamination and treatment stations	This section should be updated as needed during an incident (e.g., with sites that are used or may be used to manage waste during the incident). Relevant legal and regulatory requirements should be considered. Reuse, recycling, and composting are preferred options—consider adding a list of possible materials that can be reused, recycled, or composted. Having advance information on the local and regional markets, capacity, and local and regional recyclers is important. Consider the impact of potential decontamination approaches on quantities and characteristics of waste and the impact of waste management constraints on potential decontamination approaches. Consider difficulties and issues regarding removing waste from private property. Account for impacts from adverse weather, such as flooding and wind damage. Identify multiple sites/locations to choose from during an incident, if possible. However, designating specific sites/locations in advance of an incident may not be possible. In this case, develop guidelines that could be used to designate sites during an incident. Whether specifying sites/locations or developing guidelines, consider: • Benefits of on-site vs. off-site management • Speed with which waste needs to be managed • Facility requirements and capacity • Permitting procedures • Cost of various options • Community/Environmental Justice concerns • Site security • Resources needed, including private sources of equipment • FEMA's eligibility requirements • Proximity to anticipated waste generation points • Ease of access • Ease of containment of wastes/materials • Ownership of sites • Need for buffers and setbacks

	• Proximity to sensitive/protected areas (e.g., wetlands, surface water, storm drains, sanitary sewer drains, drinking water wells) • Environmental and human health concerns of specific waste streams • Ability to sort waste streams by category to facilitate recycling • Ability to properly contain radioactive or other highly hazardous waste streams Consider the possible need for long-term groundwater, air, and other environmental monitoring at on-site burial sites and other waste management facilities or sites. Consider the nature of the waste or material being managed. In some cases, long-term storage may be required. **Recommended Tools:** Interim – Planning Guidance for the Handling of Solid Waste Contaminated with a Category A Infectious Substance https://phmsa.dot.gov/hazmat Carcass Disposal Decision Tree https://www.aphis.usda.gov/aphis/ourfocus/emergencyresponse/sa_tools_and_training/ct_aphis_disposal_tree
VI. Waste Management Facilities 1. Anticipated types of waste management facilities needed *Identify all facility types needed to manage anticipated waste streams and quantities* 2. Specific facilities identified *Provide detailed information on each potential site to aid in selection at time of the incident, including some or all of the following: facility name, type, contact information for site manager and support staff, location information (including latitude/longitude), permit status and compliance history, types of waste accepted, pre-negotiated contracts if any, waste capacity, waste acceptance criteria, financial status, distance from anticipated*	This section should be updated as needed during an incident with facilities that are used or may be used to manage waste during the incident. Communicating with facilities before an incident occurs can help to determine the facilities' waste acceptance criteria, which may be more stringent than what is legally required (e.g., in order to help determine sampling and analysis needs, size requirements). Identify multiple waste management facilities to choose from in case an incident occurs. Waste from wide area incidents may exceed the capacity of local facilities, or facilities may refuse to accept the waste. Out-of-state facilities may be necessary, in which case state permission may be required and different regulations and requirements may apply. In the event that existing waste management facilities do not have the capacity or capability to manage all generated wastes, including those in other communities that are accessible by rail, barge, or truck, planners should consider storing waste long-term, reopening a closed facility, or constructing a new facility. Consider pre-identifying sites for

waste generation points, costs, community concerns	potential new facilities or developing criteria for siting new facilities. **Recommended Tools:** Report on the 2011 Workshop on Chemical-Biological-Radiological Disposal in Landfills https://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=239188
VII. Transportation 1. Logistical options 2. Routes (including maps) 3. Hauler information *Provide detailed information on each potential hauler to aid in selection at time of the incident, including some or all of the following: hauler's name, type, contact information, wastes they are permitted to handle, community concerns, security and legal requirements, decontamination needs, insurance requirements, PPE requirements, any special documentation requirements, spill response plan, and pre-negotiated contracts, if applicable*	Consult with transportation officials on alternate routes, damaged infrastructure, and other matters impacting transport of waste. Prior to transportation, hazardous material must be classified according to the risks it presents and packaged, marked, labeled, and described on a shipping paper, as required by the Pipeline and Hazardous Materials Safety Administration's (PHMSA) Hazardous Materials Regulations (HMR; 49 CFR parts 171-180). Guidance is available on PHMSA's website (https://www.phmsa.dot.gov) and through its Hazardous Materials Information Center (1-800-467-4922). Consider all modes of transportation, including aircraft, vessel and rail, as well as possible differences in restrictions for interstate highways and local roads. Keep in mind packaging, labeling, permitting, security (e.g., for certain waste streams, escorts and computerized, real-time tracking systems may be required), and other transportation requirements (e.g., DOT, state). Consider impact of treatment on transportation requirements. Zoning restrictions may be an issue, particularly for large vehicles. State permission may be required, which may include obtaining a permit. Expedited permit procedures may be appropriate. Highway weight restrictions may vary based on time of year. Proximity to transportation is an important consideration when selecting a waste management site (e.g., whether heavy equipment can access the site to load the large quantities of waste onto barges or railcars), as well as proximity to waste management facilities.

	Consider including a pre-scripted outline or fact sheet of hauler responsibilities, including health and safety requirements. Drivers may be considered emergency workers and subject to applicable exposure limits. **Recommended Tools:** PHMSA's website https://www.phmsa.dot.gov/hazmat The Emergency Response Guidebook https://www.phmsa.dot.gov/hazmat/outreach-training/erg PHMSA Hazardous Materials Information Center 1-800-HMR-4922 (1-800-467-4922); 202-366-4488 phmsa.hm-infocenter@dot.gov https://www.phmsa.dot.gov/hazmat/standards-rulemaking/hmic Guidance on Transporting Infectious Substances https://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/Transporting_Infectious_Substances_brochure.pdf
VIII. Waste and Material Tracking and Reporting System 1. General principles 2. Databases or other tracking software to be used 3. Waste tracking report templates *Indicate information to be tracked*	Tracking the waste from cradle to grave helps increase transparency and aids in allaying community concerns. Keep in mind security concerns regarding sensitive information. Use of portable measurement and digital tracking devices should be considered. Haulers, states, and receiving facilities may use different surveying equipment and units of measurement, which should be adjusted as needed to maintain consistency.
IX. Community Communications/Outreach Plan 1. Contact information for key stakeholder groups *(e.g., community groups, media, government officials)* 2. Pre-scripted information for waste management activities involving the public *(e.g., fact sheets, public service announcements (PSAs), frequently asked questions(FAQs))* 3. Information to aid in establishing a response website once an incident occurs and/or contribute to	Past incidents show that communities express more concern with wastes from homeland security incidents than they do with wastes not tied to such incidents (perceived risk vs. actual risk). Community concerns have driven waste management decisions in the past. Community outreach may include detailing special training, required PPE, and safety information, especially during a chemical, biological, or radiological incident, for facility personnel, people who choose not to evacuate their homes and, thus, are living with contamination in their homes, and responders, including volunteers who are helping to clean up the waste. During an actual incident, public outreach takes place within the Incident Command System.

an incident response website created by the Incident Command or other entity *(e.g., hosting information, format, potential contents)*	Also consider the use of social media and the need for interpreters/translators.
X. Health and Safety for Waste Management Activities	While a general health and safety plan for the incident will be developed, specific waste management activities may require additional guidance and should be addressed. Waste handling at all stages may require environmental monitoring and additional measures to detect and prevent releases to the environment, which may result in harmful exposures to workers or the public (e.g., exposure to fibers from friable asbestos, aerosolization of microbials). Ensure that the overall incident health and safety plan includes information related to waste management activities.
XI. Resource Summary *Gathered from all previous sections* 1. Resource needs *(e.g., equipment, staff, packaging materials, PPE)* 2. Resource sources a. Mutual Aid Agreements b. Pre-negotiated contracts c. Regulatory waivers d. Specialized experts 3. Specialized technical assistance contacts 4. Contracting a. Emergency procurement procedures b. Contract oversight plan 5. Cost accounting/financial management 6. FEMA eligibility guidance	Resources may be available in-house, from contracts, or through agreements. For any contracting need, possible contractors should be identified and prequalified. Consider that the availability of resources may be impacted by the incident itself (e.g., contamination, physical damage), lack of access (e.g., road damage), adverse weather conditions, competing needs from other jurisdictions or responses, etc. **Recommended Tools:** FEMA's Public Assistance Program and Policy Guide https://www.fema.gov/media-library/assets/documents/111781

XII. Oversight Activities and Exit Strategy *Describe the process for transitioning each waste management activity back to its pre-incident state, including the scale-down/close-out of each waste management response activity (e.g., waste collection and staging, air monitoring of staging areas) and each waste management oversight activity performed (e.g., site visits/inspections of waste management facilities and sites, sampling and analysis of waste streams), the transition of roles and responsibilities, and the frequency of each activity*	This section should be developed and added at the time of an incident. It is important to note that there may be some waste management activities that extend beyond the end of the response that should be addressed in the exit strategy (e.g., long-term monitoring).

RECOMMENDED APPENDICES

- Job Aids for waste management staff positions
- List of training classes available for different waste management roles
- Pre-written waste management emergency ordinances, orders, directives, declarations, designations, permits, etc.
- Maps of waste management facilities and sites, transportation routes, critical waste management infrastructure, and key resources
- Links to health and safety information
- Protective Action Guides (https://www.epa.gov/radiation/protective-action-guides-pags)
- Glossary and list of acronyms

All-hazards Waste Management Decision Diagram

Background: Waste management (also referred to as debris management) is a critical part of the response to and recovery from a homeland security incident, such as an act of terrorism involving chemical, biological, or radiological agents, a large-scale natural disaster, and an animal disease outbreak. Waste is generated immediately by the incident itself and continues to be generated by the characterization, decontamination, and cleanup processes. More efficient and effective management of the amounts and types of waste generated can result in a quicker and less costly recovery from an incident.

Purpose: This waste management decision diagram is intended to assist emergency planners and managers in the public and private sectors with the waste management decision-making process after a homeland security incident occurs. It includes considerations that aid in making waste management-related decisions and identifies areas where pre-incident waste management planning can be useful.

Notes about this Decision Diagram:

- This decision diagram is divided into three stages – initial activities, on-site activities, and off-site activities – at which waste management decisions are typically made during an incident. The diagram is intended to be a guide only. While many of these considerations and decisions are part of every response, differences in the waste management decision-making process exist but are not accounted for in this all-hazards decision diagram. Also, many of the steps may occur concurrently during an incident, as well as in a different order. The needs and specifics of the response should guide the decision-making process.

- Planning for waste management, including waste staging, sampling, characterization, packaging, transportation, reuse, recycling, treatment, and disposal, before an incident occurs is very important. Pre-incident planning facilitates the decision-making process during an incident response, assisting with the steps in this flowchart. More information about pre-incident planning can be found in EPA's *Pre-incident All-hazards Waste Management Plan Guidelines: Four-step Waste Management Planning Process* document, which can be found at https://www.epa.gov/homeland-security-waste.

- This diagram does not discuss the Federal Emergency Management Agency's (FEMA's) *Public Assistance Program and Policy Guide*. Review FEMA's eligibility requirements at https://www.fema.gov/media-library/assets/documents/111781 in the event of a federal emergency or major disaster declaration.

- Different waste management requirements may apply to different types of wastes. For example, solid waste that is non-hazardous under the Resource Conservation and Recovery Act (RCRA) would likely take a different route than RCRA hazardous waste, as well as from waste that falls outside RCRA's scope. Alternatively, all waste may be managed under the more stringent requirements for hazardous waste. In addition, states may have more stringent requirements for waste than the federal regulations.

- Reuse and recycling opportunities are potentially available for many different waste streams, including hazardous waste. Legitimate reuse and recycling options, if applicable, should be considered before other waste management options (e.g., landfills) to help lessen the environmental and economic impacts of the incident. Hazardous waste being legitimately recycled still needs to meet the RCRA hazardous waste management requirements, unless specifically excluded from regulation.

All-hazards Waste Management Decision Diagram for Homeland Security Incidents

Initial Activities

Conduct Damage Assessment
- What is the nature of the incident?
- Select Waste Management Plan that aligns to the specific incident, if applicable
- Establish and maintain communication across the whole community (e.g., regulatory agencies, general public)
- Investigation by law enforcement may impact initial waste management activities

Identify Generated Materials[1] and Estimate Their Quantities
- Begin identifying potential waste management sites, facilities, and resources if not already pre-identified
- Conduct cost-benefit analysis of waste management options

Segregate the Materials as Much as Practicable
- Separate materials that have the potential for reuse or recycling from materials that will be otherwise managed
- May also segregate the materials by type, potential waste stream, receiving facility, contaminant, or required treatment technology

Will Materials Be Decontaminated?
- Yes → **Decontaminate the Materials with Appropriate Assistance**
  - Prepare a site sampling and analysis plan
  - Establish a clearance level
  - Confirm effectiveness of decontamination technology
  - Manage waste (e.g., decontamination water generated from the decontamination process)
- No

On-site Activities

Make Waste Determination
- Are materials reusable?
- Develop or update waste sampling and analysis strategy for waste characterization and classification
- How does RCRA status (hazardous vs. non-hazardous) impact storage, documentation, handling, safety, and other considerations?
- How do other EPA statutes and statutes from other federal agencies (e.g., CDC, NRC, USDA) apply?
- How do state/local/tribal/territorial regulations apply to the waste (which may be more stringent than federal requirements)?

Reusable Materials → **Reuse**
- Vendor verification suggested

Waste → **Process Waste if Applicable or Feasible**
- Consider treatment options
- Waste minimization (e.g., volume reduction, toxicity reduction)
- Biosecurity, chemical agent, and particulate concerns
- Conduct environmental monitoring

Will the Waste Be Recycled or Composted Off-site[2]?
- No → **Can the Waste Be Disposed of On-site?**
  - Yes → **Dispose of Waste in a Manner that Protects Human Health and the Environment**
    - Environmental monitoring/controls
  - No
- Yes

Prepare Waste for Transport[3]
- Packaging, labeling, and transport requirements (e.g., EPA, DOT, state)
- Other federal/state/local/tribal/territorial regulations may apply
- Any special handling/safety considerations?

Non-recyclable Waste → **Select Appropriate Disposal Facility**
- Capacity, cost, permit considerations
- Community concerns and Environmental Justice issues considered?
- Coordinate with stakeholders

Can Waste Be Directly Transported to the Facility?
- Yes
- No → **Manage Waste in a Storage/Staging Area**
  - Segregate the waste
  - Remove hazards
  - Decontaminate as necessary
  - Conduct environmental monitoring
  - Volume reduction
  - Can be on-site or off-site
  - Comply with applicable regulations

Recyclable Waste → **Recycle**
- Vendor verification suggested

Off-site Activities

Manage Waste in an Appropriate Disposal Facility

[1] "Material" is defined broadly at this point in the process: materials ultimately may be reused, recycled, or disposed of as waste.

[2] In some circumstances, waste can be recycled (e.g., breaking up and grinding concrete on-site for immediate use in backfill) or composted (e.g., in-house composting of poultry) on-site.

[3] Waste identified as hazardous would need to meet the RCRA hazardous waste management requirements for transportation, recycling, storage, treatment, disposal, etc.